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NOTICE OF ALLOWANCE AND FEE(S) DUE

52044 7590 05/29/2009 SNELL & WILMER L.L.P. (Panasonic) 600 ANTON BOULEVARD SUITE 1400

COSTA MESA CA 92626

| EXAMINER | | | | | |
|-----------------------|--------------|--|--|--|--|
| AGHDAM | , FRESHTEH N | | | | |
| ART UNIT PAPER NUMBER | | | | | |
| 2611 | | | | | |
| DATE MAILED: 05/29/2 | 009 | | | | |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/550,669 | 09/26/2005 | Yukihiro Omoto | 92478-3800 | 3025 |

TITLE OF INVENTION: FREQUENCY SYNCHRONIZATION APPARATUS AND FREQUENCY SYNCHRONIZATION METHOD

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 08/31/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GARAT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This f appropriate. All further c indicated unless corrected maintenance fee notification | form should be used for or spondence including the low or directed others. | or tran | smitting the ISSU Patent, advance or in Block 1, by (a | | | | | hould be completed where correspondence address as trate "FEE ADDRESS" for |
|--|--|--------------------------------------|---|---|--|--|---|---|
| CURRENT CORRESPONDED | NCE ADDRESS (Note: Use Blo | ock 1 for: | any change of address) | par | xers. Each additiona | il paper | r, such as an assignme | or domestic mailings of the for any other accompanying nt or formal drawing, must |
| 52044 | 7590 05/29 | /2009 | | hav | | | illing or transmission. | |
| 600 ANTON BO SUITE 1400 | | asoni | ic) | I h Sta ado tra | araba cartify that th | ie Good | e of Mailing or Trans (s) Transmittal is being fficient postage for fire ISSUE FEE address 71) 273-2885, on the d | mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below. |
| COSTA MESA, O | CA 92626 | | | | | | | (Depositor's name) |
| | | | | L | | | | (Signature) |
| | | | | L | | | | (Date) |
| APPLICATION NO. | FILING DATE | | | FIRST NAMED INVENTOR | 3 | ATTC | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/550,669 | 09/26/2005 | - | | Yukihiro Omoto | | | 92478-3800 | 3025 |
| TITLE OF INVENTION: | | | | | | | | |
| APPLN, TYPE | SMALL ENTITY | 188 | SUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSU | EFEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | | \$1510 | \$300 | \$0 | | \$1810 | 08/31/2009 |
| EXAMI | NER | | ART UNIT | CLASS-SUBCLASS | | | | |
| AGHDAM, FR | ESHTEH N | | 2611 | 375-362000 | | | | |
| PTO/SB/47; Rev 03-02 Number is required. 3. ASSIGNEE NAME AN | ndence address (or Cha 122) attached. atton (or "Fee Address" or more recent) attach TD RESIDENCE DATA ss an assignee is identi in 37 CFR 3.11. Comp | nge of 6 " Indica ed. Use | Correspondence ution form of a Customer | | o 3 registered pater ively, the firm (having as a agent) and the nam orneys or agents. If e printed. (pe) patent. If an assign assignment. | n memb es of u no nan | per a 2pto ne is 3dentified below, the d | ocument has been filed for |
| Please check the appropria | ite assignee category or | catego | | | | | | oup entity Government |
| 4a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies | | | o. Payment of Fee(s): (Ple A check is enclosed. Payment by credit ca The Director is hereboverpayment, to Dep | urd. Form PTO-2038 | is att | ached. required fee(s), any de | | |
| Change in Entity Statu a. Applicant claims | SMALL ENTITY statu | ıs. See : | 37 CFR 1.27. | b. Applicant is no lo | | | | |
| NOTE: The Issue Fee and interest as shown by the re | Publication Fee (if requeered of the United Sta | uired) v tes Pate | vill not be accepted ent and Trademark | d from anyone other than Office. | the applicant; a regi | istered | attorney or agent; or th | ne assignee or other party in |
| Authorized Signature _ | | | | | Date | | | |
| Typed or printed name | | | | | Registration N | | | |
| This collection of informal an application. Confidenti- submitting the completed this form and/or suggestion Box 1450, Alexandria, Vir Alexandria, Virginia 2231. | tion is required by 37 C ality is governed by 35 application form to the ns for reducing this bur rginia 22313-1450. DC 3-1450. | FR 1.3 U.S.C. USPT rden, sh | 11. The informatic 122 and 37 CFR O. Time will vary tould be sent to the SEND FEES OR | on is required to obtain or 1.14. This collection is e- depending upon the indi e Chief Information Offic COMPLETED FORMS T | retain a benefit by t stimated to take 12 to vidual case. Any co- cer, U.S. Patent and O THIS ADDRESS | the pub minute ommen Trader S. SEN | lic which is to file (and s to complete, including ts on the amount of times mark Office, U.S. Dep D TO: Commissioner | by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

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| 10/550,669 | 09/26/2005 | Yukihiro Omoto | 92478-3800 | 3025 | | |
| 52044 75 | 90 05/29/2009 | | EXAM | IINER | | |
| SNELL & WILMER L.L.P. (Panasonic) | | | AGHDAM, FRESHTEH N | | | |
| 600 ANTON BOU | LEVARD | | ART UNIT | PAPER NUMBER | | |
| SUITE 1400 COSTA MESA, CA 92626 | | | 2611 DATE MAILED: 05/29/200 | 9 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 614 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 614 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) | |
|--------------------|--------------|--|
| 10/550,669 | OMOTO ET AL. | |
| Examiner | Art Unit | |
| FRESHTEH N. AGHDAM | 2611 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence addressAll claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to amendment filed 4/8/2009.
- The allowed claim(s) is/are 1,2,5-11,14 and 22.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Tager No.//waii Date
 Somment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other ___

Application/Control Number: 10/550,669

Art Unit: 2611

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

As to claim 1, page 2, line 12, replace the phrase "a control signal" with the phrase "the control signal".

As to claim 1, page 2, line 12, replace the phrase "an output signal" with the phrase "the output signal".

As to claim 1, page 2, line 13, replace the phrase "a frequency shift" with the phrase "the frequency shift".

As to claim 8, page 2, line 12, replace the phrase "a control signal" with the phrase "the control signal".

As to claim 8, page 2, line 12, replace the phrase "an output signal' with the phrase "the output signal".

As to claim 8, page 2, line 13, replace the phrase "a frequency shift" with the phrase "the frequency shift".

As to claims 4 and 13, cancel both claims 4 and 13.

Allowable Subject Matter

Claims 1-2, 5-11, 14, and 22 are allowed. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach the newly limitations added to the base claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRESHTEH N. AGHDAM whose telephone number is (571)272-6037. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. N. A./

Examiner, Art Unit 2611

/Chieh M Fan/

Supervisory Patent Examiner, Art Unit 2611